



CERTIFICATE OF MAILING
37 C.F.R. 1.8

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Date

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Signature

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Hagan P. Bayley, et al.

Serial No.: 09/781,697

Filed: February 12, 2001

For: BIOSENSOR COMPOSITIONS AND
METHODS OF USE

Group Art Unit: 1641

Examiner: M. Tran

Atty. Dkt. No.: 12740.0249.NPUS01

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria VA, 22313-1450

Sir:

This a Reference copy of the Information Disclosure Statement that was filed with the Request for Continued Examination (RCE) for the above captioned application on August 19, 2004. Copies of the references cited in the attached Form PTO 1449 were not submitted with the August 19, 2004 filing because that filing was done via facsimile.

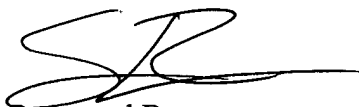
In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record.

In accordance with 37 C.F.R §§ 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The August 19, 2004 filing authorized the Commissioner to deduct the fees for filing an Information Disclosure Statement from our Deposit Account. It is therefore believed that no fees are due in connection with the present submission. However, should any fees be required for any reason related to the enclosed material, the Commissioner is authorized to deduct said fees or credit any overpayment to Deposit Account No. 01-2508/12740.0249.NPUS01.

Applicant respectfully requests that the listed documents be made of record in the present case.

Respectfully submitted,



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Date: August 30, 2004

Form PTO-1449 (modified)

Atty. Docket No.
12740.0249.NPUS01Serial No.
09/781,697

U.S. Department of Patents and Publications for Applicant's

Applicant
Hagan P. Bayley, et al.

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:
February 12, 2001Group:
1641U.S. Patent Documents
*See Page 1*Foreign Patent Documents
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See Page 1

U.S. Patent Documents

| Exam. Init. | Ref. Des. | Document Number | Date | Name | Class | Sub Class | Filing Date of App. |
|-------------|-----------|-----------------|----------|--------------------|-------|-----------|---------------------|
| | A1 | 5,234,566 | 08/10/93 | Osman et al. | 204 | 403 | 08/17/89 |
| | A2 | 5,443,955 | 08/22/95 | Cornell et al. | 435 | 7.21 | 01/29/90 |
| | A3 | 5,795,782 | 08/18/98 | Church et al. | 436 | 2 | 03/17/95 |
| | A4 | 5,368,712 A | 11/29/94 | Tomich John et al. | 204 | 403 | 08/31/90 |

Foreign Patent Documents

| Exam. Init. | Ref. Des. | Document Number | Date | Country | Class | Sub Class | Translation Yes/No |
|-------------|-----------|-----------------|----------|---------|-------|-----------|--------------------|
| | B1 | W0 99 05167 A | 02/04/99 | WIPO | | | |
| | B2 | W0 96 20688 A | 07/11/96 | WIPO | | | |
| | B3 | W0 97 20203 A | 06/05/97 | WIPO | | | |
| | B4 | | | | | | |
| | B5 | | | | | | |

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

| Exam. Init. | Ref. Des. | Citation |
|-------------|-----------|---|
| | C1 | Thomas Ferenci and King-Sang Lee; Department of Microbiology, University of Sydney; "Channel Architecture in Maltoporin: Dominance Studies lamb Mutations Influencing Maltodextrin Binding Provide Evidence for Independent Selectivity Filters in Each Subunit"; June 13, 1988; 7 pages. |
| | C2 | Charles A. Roessner and Garret M. Ihler; Department of Medical Biochemistry and Genetics, Texas A&M College of Medicine; "Formation of Transmembrane Channels in Liposomes during injection of DNA"; June 3, 1985; ppgs. 386-390. |
| | C3 | Orit Braha, Barbara Walker, Stephen Cheley, John Kasianowicz, Langzhou Song, J. Eric Gouaux and Hagan Bayley; "Designed protein pores as components for biosensors"; April 25, 1997; ppgs. 497-505. |

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)

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Form PTO-1449 (modified)

Atty. Docket No.
12740.0249.NPUS01Serial No.
09/781,697

List of Patents and Publications for Applicant's

Applicant
Hagan P. Bayley, et al.

INFORMATION DISCLOSURE STATEMENT

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Filing Date:
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1641U.S. Patent Documents
See Page 1Foreign Patent Documents
See Page 1Other Art
See Page 1

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

| Exam. Init. | Ref. Des. | Citation |
|-------------|-----------|--|
| | C4 | Cornell E.A.: "The gramicidin-based biosensor: a functional nano-machine" NOVARTIS FOUNDATION SYMPOSIUM, vol. 225, 1999, pages 231-254, XP001052820 Chichester. |
| | C5 | Bayley: "Designed membrane channels and pores" CURRENT OPINION IN BIOTECHNOLOGY, vol. 10, 1999, pages 94-103, XP001058234 . |
| | C6 | Boehmer, Volker: "Calixarenes macrocycles with (almost) unlimited possibilities" ANGEW, CHEM., INT. ED. ENGL. (1995). 34(7), 713-45, XP002188229 |
| | C7 | Movileanu L. Et al.; "Detecting protein analytes that modulate transmembrane movement of a polymer chain within a single protein pore." NATURE BIOTECHNOLOGY, (2000 OCT) 18 (10) 1091-5.; XP002188230 |
| | C8 | Van Der Goot E.A.: "Sensing proteins outside of the box" NATURE BIOTECHNOLOGY, vol. 18, 18 October 2000 (2000-10-18), page 1037 XP002188231 |
| | C9 | Howorka: "A protein pore with a single polymer chain tethered within the lumen" JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 122, no. 11, 22 March 2000 (2000-03-22), pages 2411-2416, XP002188232 DC US |
| | C10 | Search Report for application PCT/US01/04482, European Patent Office, Feb. 2, 2002, PCT |

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